On the road to a GIGABIT BROADBAND Are we there yet?

A Self-Assessment Guide for Communities

EDUCATION • INTERNET • DISTANCE LEARNING • INTERNET TELEPHONY • MOVIES-ON-DEMAND • NOTIFICATION SERVICES • VIDEO-CONFERENCING • SECURITY VIDEO • HOME AUTOMATION • TELEMEDICINE • TIME-SHIFTED TV • MULTIPLAYER GAMING • BROADCAST TV COMMUNITY INTRANET • POWER METERING • VOICE RESPONSE

About CENIC and the One Gigabit or Bust™ Initiative

The Corporation for Education Network Initiatives in California (CENIC) is a not-for-profit corporation formed in 1997 by the California Institute of Technology, the California State University, Stanford University, the University of California and the University of Southern California. It later expanded to include the California Community Colleges and statewide K–12 school system. CENIC's mission is to facilitate and coordinate the deployment, development and operation of a set of seamless and robust advanced network services.

CENIC's One Gigabit or Bust Initiative™ addresses critical technical, policy, economic and implementation challenges facing the delivery of one-gigabit broadband to all Californians by 2010. The Initiative brings together the interests of research, education, commerce, state and local government, and the general public to identify the opportunities and obstacles to achieving one-gigabit connectivity throughout California by 2010 and begin to establish an action plan to achieve this goal. For more information, see www.cenic.org.

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THE SECTORS

For more information or to download the guide and other supplemental information, see **WWW.CENIC.ORG/GUIDE**

ACRONYM DEFINITIONS

CBO	community-based organization
DSL	digital subscriber line
EFT	electronic funds transfer
gbps	gigabits per second
HR	human resources
ICT	information and communication technology
kbps	kilobits per second
LAN	local-area network
LMDS	local multipoint distribution service (broadband radio)
mbps	megabits per second
MMDS	multipoint microwave distribution service (wireless cable)
RFID	radio-frequency identification
VoIP	voice over Internet protocol
WAN	wide-area network
WiFi	wireless networking, commonly using the 802.11b protocol
WiMax	802.16 wireless metropolitan-area networking standard

A more detailed glossary is available at www.cenic.org/guide.

1. Visit the guide Web pages at www.cenic.org/guide for supplementary information.

2. Identify key thought leaders in your community—those with a vested interest in examining the overall impact of broadband. You'll find them in the education community, economic development organizations, local government, key employers and community organizations.

3. Identify key sector groups within your community that would benefit from participation in a workshop.

4. Using the Web pages as a guide, engage others in your community, form a steering committee and begin planning your workshop.

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Welcome to the Self-Assessment Guide for Communities. This guide is designed to provide a benchmark of your community's current readiness to participate in the enormous economic, social, governmental and personal changes that high-speed communications entail. More important, this guide provides a vision of specific steps and actions your community—government, businesses, schools, community groups and citizens—can take to benefit from these changes.

On the Road to a Gigabit Broadband

Technology is facing a sea change. Like the expansion of railroads, the adoption of telephone technology, and the distribution boon of our modern highway system, one gigabit broadband will fundamentally alter our core infrastructure and how we live, work, learn and function politically. Imagine today's broadband as a footpath to easily access communications services like the Internet. Tomorrow's one gigabit broadband is a superhighway—with state-of-the-art technologies that engage us visually, verbally and kinetically. One gigabit broadband offers us new forms of communications when we want them and how we want them.

Our world has been changed by the proliferation of the Internet, mobile phones, communication devices, e-commerce, and networks. These changes, however, mark only the very beginning of a new age of anytime/anywhere "connectedness." The emergence of gigabit broadband and establishment of true connectedness will entail a dramatic transformation in the very nature of our economies, societies and governments, as well as interpersonal and international relations. Today, when we think of connecting with others, we think in terms of telecommunications based on voice transmission and computing based on isolated desktop PCs. The convergence of voice, data and video, the growth of communication bandwidth, and the low cost of access devices (fixed and mobile) are paving the way for a new, inclusive model of connectivity.

CENIC retained the services of the Gartner Group, an international, technology-focused research and advisory firm, to determine the economic potential of next-generation broadband deployment in California. The report, "One Gigabit or Bust Initiative™— A Broadband Vision for California," concluded that "a $376-billion upside in gross state product by 2010 is made possible with the implementation of a focused one gigabit broadband initiative. Moreover, 2-million new jobs could be created."

The Importance of Assessing Your Community

Today, a convergence of technologies allows users to access and exchange information and content in ways never possible before. It's time now to look at the impact of next-generation broadband on your community and actively plan how best to grow as technology changes—and greatly increases—learning and earning possibilities.

Many communities have not yet considered this essential new "utility" and do not understand how current broadband deployment will affect their planning. In order to have a viable plan, you must understand where you are in the continuum of communications to ensure that your community is not left on the wrong side of the digital divide. In addition to collecting important planning information, using this guide provides you with an opportunity to educate community members on the value of broadband and its place in your community.

A simple first step, the guide offers your community a way to start the discussion about broadband and develop a plan for the future. Ultimately, using the guide provides valuable information for working with consultants, telephone companies, cable TV franchises and others to encourage investment in your community.

Now is the time for you to take action, to embrace ubiquitous one gigabit broadband as an intelligent, scalable strategy—one that provides increased jobs, economic development and social equality.

One gigabit is about transforming our personal, professional, and civic lives. It's about giving every person and every home the capacity to be an information producer and information user. When every California home, business and school achieves one gigabit, then the new, information-centric, constantly connected world will surpass our wildest dreams by improving everyone's quality of life—not just that of the educated or the affluent.

Since most people define broadband by speed—anywhere from 200 kbps and up—Gartner's recommended definition addresses that element first. By extrapolating from past trends, we believe we can establish a reasonable predictor of future needs. For example, only 20 years ago, the average business desktop to computing device required a mere 9.6 kbps of bandwidth. Today the average business desktop is networked using 100 mbps—an exponential increase of 105 the power. If we apply a similar increase to the FCC's definition of today's broadband at 200 kbps, we'll require a speed of 20 gigabits within 20 years. However, it is the uses and content made possible, not the raw speed, that we say support the argument.

The table below shows the content capability made possible as data rate increases.

SPEED	FUNCTIONALITY
100 kbps	Fast Internet and e-mail, games, voice
1 mbps	Music
1.5 mbps	Broadcast-quality MPEG II video
10 mbps	One (limited) HDTV channel and two basic channels
50 mbps	Full HDTV support, off-site computing storage

Gartner Dataquest, June 2002

These are applications we can readily identify today; there will be many more we do not anticipate. For those reasons, in addition to the need to make next-generation broadband infrastructure investments lasting and meaningful, we assert that the speed of next-generation broadband can realistically be a goal of one gigabit per household by 2010.

One Gigabit or Bust Initiative: A Broadband Vision for California, May 2003

This guide is a self-assessment tool designed to help determine the readiness of your town, city, county or region to join the one-gigabit broadband world. It offers a clear snapshot of where different communities fall along a continuum of readiness—from the stage-one community with a minimum of the necessary technology and applications to the stage-four community, which has very advanced technology and ubiquitous applications. Wherever your community falls along the continuum, this guide will provide a framework to facilitate discussion, drive decisions and produce results.

Using this guide effectively requires the coordination of a substantial amount of information. We believe the guide will be most useful if used collaboratively by a coalition of community members concerned about the area's technological and economic development. Working together, community members can pool knowledge, data and experience to produce a shared strategic plan.

Navigating the Self-Assessment Guide

There are hundreds of criteria that one could use to assess readiness for gigabit broadband. We selected the following categories, reflected in columns across the top of each chart, that we believe best represent the elements that need to be in place to capture the benefits of gigabit broadband.

THE COMMUNICATIONS SECTOR

For the communications sector, there are three categories, which best represent the elements required to measure the penetration of all levels of broadband in your community:

1. Residential: Communications to the residential areas in your community

2. Commercial: Communications to the business-related areas in your community

3. Quality: Quality of service and guarantees of network performance

OTHER SECTORS

For each of the other sectors, you'll find the four categories listed below.

1. The Network (Infrastructure): The local and backbone technologies and infrastructure that connect you to the network. There is an ever-expanding communications network infrastructure that spans the globe, connecting people and devices to all types of voice, video and data services. However,

WHAT DO THE STAGES MEAN?

The stages provide a benchmark to determine where a community is in achieving and using connectivity. When this guide was developed, Stage 2 described the connectivity in the typical large, urban community in industrialized nations. As of 2004, Stage 4 is a vision of a world with affordable, one gigabit connectivity available everywhere. However, communities are likely to be at a variety of stages as each criteria is assessed. For example, a community might have advanced infrastructure (Stage 4) but little actual use of the network for providing government services (Stage 2).

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there is tremendous variability in the speed, quality, affordability and range of services that are available where people actually connect to the network: homes, schools, businesses, cars, trains, etc.

2. Networked Places (Access): Where you spend your time and need to be connected. Infrastructure alone does not ensure connectedness. The network must extend to places where people spend their time. Mobile technologies will soon make the network available everywhere, but wired access will remain important for higher speed connections and fixed access devices.

3. Applications and Services: How you use your connection to make it meaningful and valuable. The networked world is all about how we are able to use the network to make our lives better, jobs more meaningful, time more well spent, people smarter, and communities stronger, healthier and safer.

4. Leadership: The role of the leadership and policymaking in driving the adoption of broadband.

To achieve success, all of the key driving sectors need to be engaged and nurtured. Time and time again, initiatives have failed because a broad base of support was not developed. Leaders need to ensure that they develop a broad-based, community-supported team that supports the goal of one gigabit everywhere.
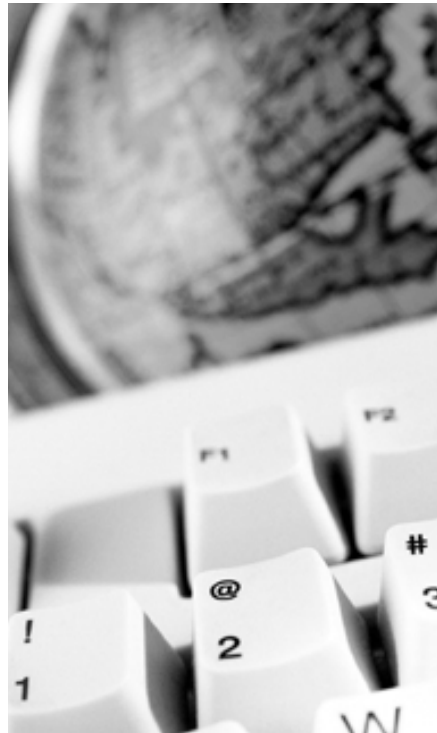
USING THE GUIDE TO CONDUCT A WORKSHOP

The guide is scalable—it is intended for use by everyone, from small towns to major cities, counties and regions. We encourage you to adapt the guide to meet your unique needs. There are no right or wrong answers. The goal is to engage your community in a discussion about where it stands today and where it wants to be one year from now.

1. Call a meeting of leaders from all of the key sectors in your community including business, government, education and health.

2. Visit www.cenic.org/guide for sample invitations and agendas to attract people to meetings.

3. Using this guide as your workbook, lead each sector group in discussions about the importance of connectedness to the community.

4. Informally benchmark your community by polling the participants on the criteria outlined in the guide's charts. You may enhance the guide by adding criteria specific to your community. Additional worksheets for other sector groups are available at www.cenic.org/guide.

5. Poll the participants on what they envision as a one-year goal for the community.

6. Conclude your meeting with a discussion about next steps—developing and implementing an action plan for your community to improve its connectedness.

Visit www.cenic.org/guide for sample invitations and agendas, an introductory presentation for use at your workshop, additional copies of the guide and worksheet tallies for each sector.

WIRED COMMUNICATIONS

Communities must have advanced telecommunications services to compete in the 21st century. In this section, we will focus on communications services that use wires to provide a physical wired connection.

In the 1990s communications companies began deploying broadband technologies that offered two major advantages over traditionally wired, dial-up lines: much higher speeds and always-on convenience. One current technology, Digital Subscriber Line (DSL) uses regular telephone lines. Another technology, the cable modem, uses the coaxial cable installed by cable television companies. In addition to these technologies, T-1 (1.5 mbps) and higher-speed dedicated-line connections are readily available, affordable and easy to install for institutional use.

You will be assessing your community's wireline telecommunications infrastructure. You'll need to work with your sector group to complete the assessment table for the telecommunications providers.

This assessment tool is designed to quickly assess where the community stands today, a rating of Level 1 is the lowest, Level 4 the highest. Please work within your group to complete the questions. Someone in the group should be designated as the table spokesperson and will be responsible for reporting on the table's findings as well as for completing a summary sheet for the facilitator.

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Note: The prices in this section should be seen as a range. There is considerable variation in prices for services in different parts of the country, and in what is considered affordable. The goal is that high speed services be priced to attract a large enough market to make other services, such as e-government and online classes, attractive.

STAGE	RESIDENTIAL	COMMERCIAL	QUALITY
1	At least 50 percent of the community has access to always-on services with speeds of at least 400 kbps downstream and 200 kbps upstream for about $40/mo. or less (e.g., cable modem, DSL).	At least 60 percent of the business districts and industrial parks have access to always-on services with speeds of at least 400 kbps downstream and 200 kbps upstream for $100/mo. or less for multiple users. Symmetric speeds of at least 1.5 mbps are available for less than $600/mo. to at least 60 percent of the business market.	Connections fail at least twice a month. Service installations take more than a month for businesses and residences. Residential service providers offer little or no protection against spam or viruses.
2	At least 80 percent of the community has access to always-on services with actual speeds of at least one mbps downstream and 200 kbps upstream for about $40/mo. or less. Fiber has been pulled into some neighborhoods.	Symmetric speeds of at least 45 mbps are available for less than $600/mo. to at least 60 percent of the business market. All new office construction includes a fiber connection.	Connections fail no more than once a month. Service installations take less than one month. Redundant lines protect the community against a single point of failure. Some residential service providers offer protection against spam or viruses.
3	At least 60 percent of the community has access to services with actual speeds exceeding 100 mbps downstream for less than $50/mo. All new homes have fiber connections. Fiber has been pulled into most neighborhoods.	Symmetric speeds of at least 155 mbps are available for less than $600/mo. to at least 60 percent of the business market. At least 30 percent of offices have fiber optic connections.	Connections fail no more than once every three months. Most networks are self-healing. Residential service providers offer robust filters against spam and most viruses.
4	At least 60 percent of the community has access to services with actual speeds exceeding one gigabit downstream for less than $50/mo. Fiber has been pulled into all neighborhoods.	Symmetric speeds of at least one gigabit is available for less than $600/mo. to at least 60 percent of the business market. At least 60 percent of offices have fiber optic connections.	Connections fail no more than once a year. All networks are self-healing.

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MY RANK

TODAY _____ 1 YR. GOAL _____

TODAY _____ 1 YR. GOAL _____

TODAY _____ 1 YR. GOAL _____

WIRELESS COMMUNICATIONS

Unless otherwise indicated, in this section "wireless" refers to terrestrial technologies, not satellite. Fixed wireless technologies include LMDS, MMDS, WiFi, WiMax and many more. Mobile wireless technologies are designed for cell phones, laptops and portable devices that can be used while moving in a car, bus or train.

Local governments are early adopters of mobile wireless technologies for their police and fire departments, and mobile workers in the public works department. The network makes it easier for them to stay in the field by allowing them to get records from central databases and file reports while in their cars and trucks.

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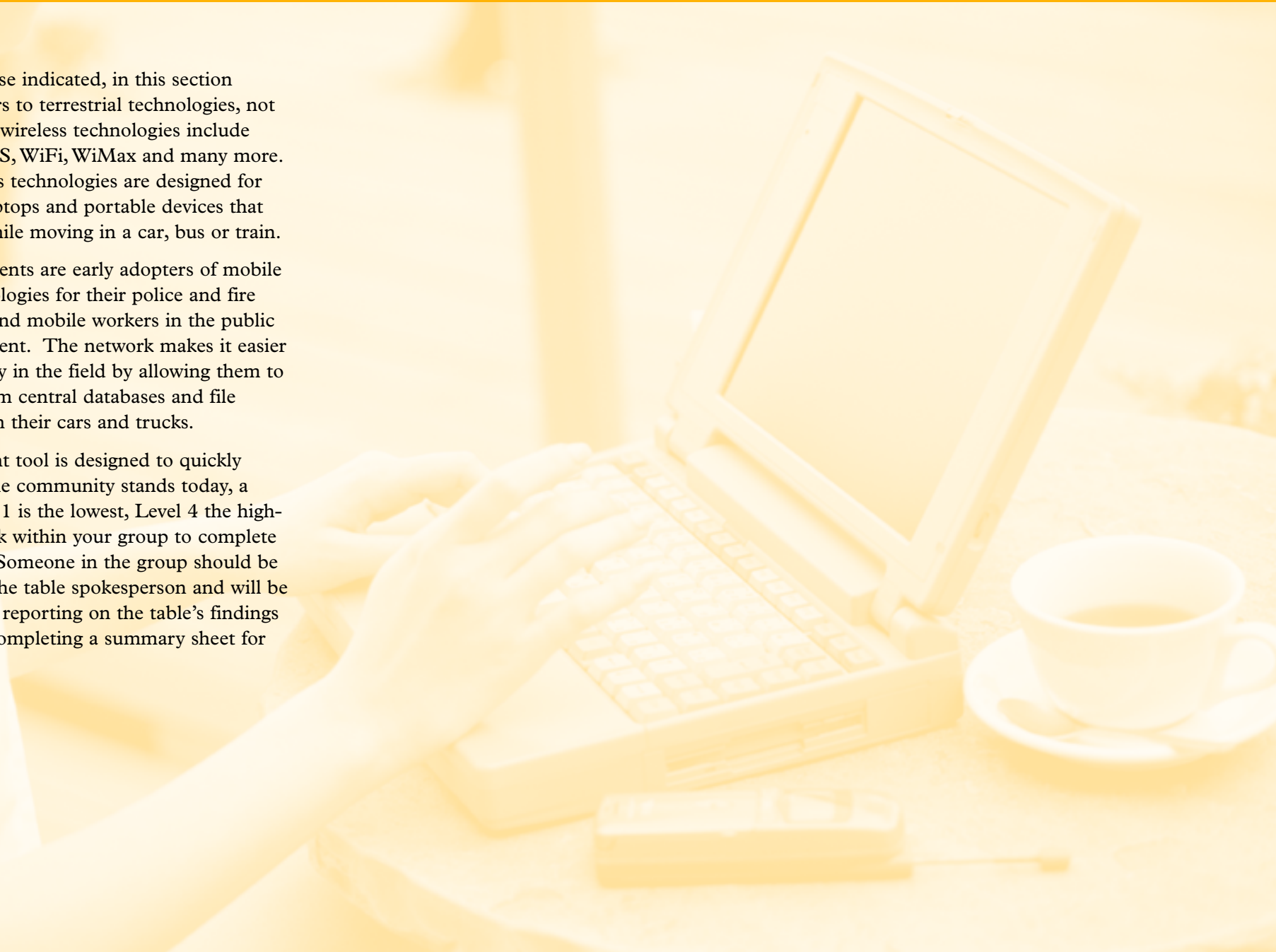
STAGE	RESIDENTIAL	COMMERCIAL	QUALITY
1	No high-speed wireless data service is available in residential areas. Satellite service, if available, is too expensive for most residents.	No high-speed wireless data service is available in commercial areas. Satellite service is available in some areas.	Fixed-data connections fail at least twice a month. Service installations for businesses and residences take longer than one month.
2	Fixed wireless service is available in some communities for less than $100/mo. Eleven mbps or faster wireless service is available in some restaurants, hotels and the airport. Service plans are available for less than $30/mo. 200 kbps data service is available for mobile phones and other mobile devices for $50/mo.	Fixed wireless service is available in some business districts for less than $300/mo. for multiple users. Eleven mbps wireless service is available in some restaurants, hotels and the airport. 200 kbps data service is available for mobile phones and other mobile devices for rates less than or equal to equivalent wired broadband service.	Fixed-data connections fail no more than once a month. Service installations take less than one month.
3	100 mbps or faster wireless service is available in some restaurants, hotels and the airport. Service plans are available for less than $30/mo. Two mbps data service is available for phones and other mobile devices for $50/mo.	Fixed wireless service with nominal speeds over 150 mbps is available for less than $300/mo. for multiple users. 100 mbps wireless service is available in some restaurants, hotels and the airport. Two mbps data service is available for phones and other mobile devices for rates less than or equal to equivalent wired broadband service.	Fixed-data connections fail no more than once every three months. Most networks are self-healing.
4	One gbps or faster wireless service is available in some restaurants, hotels and the airport. Service plans are available for less than $30/mo. 100 mbps data service is available for phones and other mobile devices for $50/mo.	One gbps fixed wireless service is available for businesses for less than $300/mo. for multiple users. One gbps wireless service is available in some restaurants, hotels and the airport. 100 mbps data service is available for rates less than or equal to equivalent wired broadband service.	Fixed-data connections fail no more than once a year. All networks are self-healing.
MY RANK	TODAY _____ 1 YR. GOAL _____	TODAY _____ 1 YR. GOAL _____	TODAY _____ 1 YR. GOAL _____

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LARGE AND URBAN GOVERNMENTS

Access to public services and information should be available with the same convenience and ease of use as ordering a book online. Next-generation broadband offers local government the ability to do more with less—to deliver better services to the public in less time and at less cost. The benefit of ubiquitous broadband deployment is enormous for e-government purposes. Local government must leverage its resources to help drive the commercial market and encourage underserved communities to use next-generation broadband. Governments need to "think outside of the box" and use their ability to create and provide incentive for change.

Roles can include:

• Telecom consumer and developer of high-capacity networks

• WiFi public hot-spot provider

• Content provider and applications developer

• Manager of public rights-of-way

• Attractor of broadband service providers

• Advocate in state and national policy-making

You'll be assessing your community's use of and planning for advanced services and applications. Your assignment is to work with your sector group to complete the assessment table for the large and urban government sector.

This assessment tool is designed to quickly assess where the community stands today, a rating of Level 1 is the lowest, Level 4 the highest. Please work within your group to complete the questions. Someone in the group should be designated as the table spokesperson and will be responsible for reporting on the table's findings as well as for completing a summary sheet for the facilitator.

STAGE

THE NETWORK

1
At least 50 percent of offices have a 100 mbps LAN.

Wireless services are available in some areas.

Most office buildings are interconnected.

The primary connection to the Internet is at least one mbps symmetrical.

2
At least 25 percent of offices have a one gbps LAN.

Wireless services are available in several areas.

An intranet is being installed or planned.

Most facilities have a 10 mbps symmetrical connection to the Internet.

3
At least 50 percent of offices have a one gbps LAN.

Wireless services are available in many areas.

An intranet has been implemented for at least 60 percent of sites.

Most facilities have a 100 mbps symmetrical connection to the Internet.

4
At least 75 percent of offices have a multigigabit LAN.

High-speed wireless services are widely available.

An intranet is being widely used.

Most facilities have a one gbps symmetrical connection to the Internet.

MY RANK   TODAY _____   **1 YR. GOAL** _____

NETWORKED PLACES

APPLICATIONS & SERVICES

LEADERSHIP

At least 50 percent of employees have e-mail accounts.

Some videoconferencing is being used.

Public agency Web sites offer informational interactive features such as calendar, e-mail list server, staff directory and downloadable forms.

Customers rely primarily on postal mail and telephone to conduct business.

Public agencies do not have a strategy for how best to use e-government.

Minimal telecommunications planning has occurred.

Elected officials are not involved in telecommunications issues.

Some employees use desktop videoconferencing regularly.

Some webcams have been deployed.

Some field workers are collecting data on laptop computers or palmtops and using wireless networks to update databases.

Some e-government applications, such as building permit requests, mailing lists and forms are available online.

Customers can make routine payments, such as parking fines, online by credit card or EFT.

E-mail from residents is routed to the appropriate departments and tracked.

At least 75 percent of agencies use the network to share data.

Government staff is actively involved in framing technology and telecommunications issues.

Processes are underway for enhancing connectivity, rights-of-way management and IT innovation.

Staff is trained and competent in basic applications.

Elected officials understand the importance of the network for economic development and quality of life.

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Desktop videoconferencing is widely available.

At least 30 percent of field workers use wireless networks to upload and download data in the field.

Sensors and webcams monitor locations, such as rivers, that may be a threat to public safety.

Traffic signals in major traffic corridors are connected to a central control station.

The telephone system is being converted to VoIP.

Interactive applications, such as customer relationship management, online GIS and video streaming, are in use.

Building inspections and violations are entered from the field.

At least 50 percent of customer payment transactions, such as building permits and parking fines, can be completed online.

Police in the field utilize wireless for routine activities.

Updated policies that govern rights-of-way and tower siting are in place and reflect the goal of one gigabit by 2010.

Government is a role-model user of technology and plays an active role in collaborating with community groups to further the technology plans of the community.

At least 50 percent of agencies have a formal policy that allows some employees to work at home at least one day a week.

Video communications are routine.

Satellite images are used to speed emergency response.

VoIP has replaced conventional telephones.

Emergency response teams can reliably communicate across jurisdictions.

Council meetings are indexed and available for searching and retrieval online.

The government has telecommunications, e-government and IT master plans in place to guide its efforts.

Innovative processes are used to collaborate with the private sector.

TODAY _____ **1 YR. GOAL** _____

TODAY _____ **1 YR. GOAL** _____

TODAY _____ **1 YR. GOAL** _____

SMALL URBAN AND RURAL GOVERNMENTS

Businesses and residents want to access public services and information with the same convenience and ease of use as ordering a book online. Next-generation broadband offers local government the ability to do more with less— to deliver better services to the public in less time at less cost.

The benefit of ubiquitous broadband deployment is enormous for e-government purposes. Small urban and rural governments can implement creative, effective e-government solutions that reach all corners of their unique communities. Solutions that scale and are cost appropriate are available for every size government and for governments serving any geography. Organizations need to "think outside of the box" and use their ability to create and provide incentive for change.

You will be assessing your community's use of and planning for advanced services and applications. Your assignment is to work with your sector group to complete the assessment table for the small and rural government sector.

This assessment tool is designed to quickly assess where the community stands today, a rating of Level 1 is the lowest, Level 4 the highest. Please work within your group to complete the questions. Someone in the group should be designated as the table spokesperson and will be responsible for reporting on the table's findings as well as for completing a summary sheet for the facilitator.

STAGE

THE NETWORK

1
At least 25 percent of offices have a 100 mbps LAN.

Some office buildings are interconnected.

The primary connection to the Internet is at least one mbps symmetrical.

2
At least 10 percent of offices have a one gbps LAN.

Wireless networks, such as WiFi, are available in some areas.

An intranet is being installed or planned.

The primary connection to the Internet is at least 10 mbps symmetrical.

3
At least 50 percent of offices have a one gbps LAN.

Wireless networks are available in many areas.

An intranet is implemented for at least 60 percent of sites.

The primary connection to the Internet is at least 100 mbps symmetrical.

4
At least 50 percent of offices have a multigigabit LAN.

High-speed wireless is widely available.

An intranet is widely used.

The primary connection to the Internet is at least one gbps symmetrical.

MY RANK   TODAY _____   **1 YR. GOAL** _____

NETWORKED PLACES

Thirty percent of employees have e-mail accounts.

Seventy-five percent of employees have e-mail accounts.

Some field workers are collecting data on laptop computers or palmtops.

Webcams are starting to be deployed.

Some employees are using desktop videoconferencing.

Some field workers use wireless networks to upload and download data in the field.

Sensors and webcams monitor locations, such as rivers, that may be a threat to public safety.

Desktop videoconferencing is widely available.

At least 40 percent of field workers use wireless networks to upload and download data in the field.

Sensors and webcams monitor locations, such as rivers, that may be a threat to public safety.

Critical traffic signals are connected.

The telephone system is being converted to VoIP to save money.

TODAY _____ 1 YR. GOAL _____

APPLICATIONS & SERVICES

Most public agency Web sites offer informational features such as community calendar, staff directory and downloadable forms.

Customers rely mostly on postal mail and telephone to conduct business.

Some e-government applications are available, such as simple building permit applications, e-mail listserv and some downloadable forms.

E-mail from residents is manually routed to the appropriate departments.

Twenty-five percent of agencies routinely use the network to share data.

Parks and recreation classes can be registered for online.

Customers can make routine payments, such as parking fines, online using credit cards or EFT.

Building inspections and violations can be entered from the field.

Interactive applications, such as customer relationship management, online GIS and video streaming are in regular use.

Employees manage benefits programs on an intranet.

Emergency response teams can reliably communicate across jurisdictions.

Council meetings are indexed and available for searching and retrieval online.

TODAY _____ 1 YR. GOAL _____

LEADERSHIP

Public agencies do not have a strategy for how best to use e-government.

Minimal telecommunications planning has occurred.

Elected officials are not involved in telecommunications issues.

Government staff is actively involved in framing technology and telecommunications issues.

Processes are underway for enhancing connectivity, rights-of-way management and IT innovation.

Employees are trained and knowledgeable on basic applications.

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Elected officials understand the importance of the network for economic development and quality of life.

Rights-of-way and tower siting policies are in place.

Some agencies have a formal policy that allows some employees to work at home at least one day a week.

The government has telecommunications, e-government and IT master plans in place to guide its efforts.

Innovative processes are used to collaborate with the private sector.

TODAY _____ 1 YR. GOAL _____

HOSPITALS AND CLINICS

The healthcare industry is highly infor-mation-intensive. Doctors have to keep up with the latest research, patient records have to be easily accessible and accurate, and images, test results and prescriptions have to be delivered promptly, without errors, to practi-tioners, pharmacies and insurance providers. Errors and delays can be costly and dangerous, so many providers are converting to electronic medical records, which can be easily updated and shared on secure, internal networks. Network-based technologies like videoconferencing and digital stethoscopes allow specialists to consult with remote patients or those at a distance, reducing travel time and hazards.

The role of the healthcare industry in economic development is also changing. Successful communities today are harnessing the collaborative strength of business, government, higher education, and the healthcare systems into a powerful collaborative model for economic development.

Today, we will be assessing the health-care sector's understanding and usage of telecommunications services and technologies. Your assignment is to work with your sector group to complete the assessment table for the healthcare sector.

This assessment tool is designed to quickly assess where the community stands today, a rating of Level 1 is the lowest, Level 4 the highest. Please work within your group to complete the questions. Someone in the group should be designated as the table spokesperson and will be responsible for reporting on the table's findings as well as for completing a summary sheet for the facilitator.

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STAGE

THE NETWORK

1
At least 30 percent of offices have a LAN that runs at 100 mbps.

100 mbps networks connect most buildings.

Fifty percent of facilities have a 1.5 mbps symmetrical or faster connection.

2
At least 25 percent of offices have a one gbps LAN.

100 mbps networks connect all buildings.

Fifty percent of facilities have a 10 mbps symmetrical connection.

Wireless networks, such as WiFi, are available in several areas.

3
At least 50 percent of offices have a one gbps LAN.

One gbps networks connect most buildings.

Fifty percent of facilities have a have a 100 mbps symmetrical connection at the main office.

Wireless networks are available in many areas.

4
At least 90 percent of offices have a one gbps LAN.

One gbps or faster networks connect all buildings.

Fifty percent of facilities have a one gbps symmetrical connection at the main office.

Wireless networks are widely available.

MY RANK   TODAY _____   **1 YR. GOAL** _____

NETWORKED PLACES

At least 40 percent of doctors regularly use computers to enter and maintain patient records.

Digital instruments and imaging equipment are being acquired.

Some doctors and nurses are using laptop and palmtop devices connected to wireless networks to enter patient information and access databases.

Local laboratories are converting to digital equipment in order to transmit test results electronically.

Internet-based videoconferencing is used to consult experts and for training programs.

Some patients are being monitored at home and at work via portable devices with wireless transmitters.

Most equipment has been converted to digital.

Desktop videoconferencing is routine at all hospitals and major clinics.

Telephone systems have converted to VoIP to save money.

Remote monitoring of patients with chronic conditions is standard procedure.

TODAY _____ **1 YR. GOAL** _____

APPLICATIONS & SERVICES

At least 50 percent of clinics and hospitals have informational Web sites.

Fifty percent of providers have informational Web sites.

At least 20 percent of providers store patient records electronically.

Telemedicine is being evaluated.

Some offices are electronically transmitting records to insurers for reimbursement.

At least 10 percent of providers allow patients to e-mail doctors.

At least 75 percent of providers store patient records electronically.

At least 25 percent of lab results and images are received electronically.

At least 50 percent of providers allow patients to schedule appointments, view records and get advice online.

At least 95 percent of patient records are stored electronically and routinely sent electronically to distant providers to aid diagnosis and treatment for emergency patients.

Telemedicine routinely is used to access specialists.

Wireless feeds in ambulances provide real-time patient assessment to ER staff.

TODAY _____ **1 YR. GOAL** _____

LEADERSHIP

Work is just beginning on the evaluation of conversion to electronic medical records.

At least 50 percent of providers have begun the conversion to electronic medical records.

At least 20 percent of providers are investigating how to deploy wireless technologies for mobile workers.

Work is underway by at least 30 percent of providers to begin online exchanging of test results and other medical records with appropriate parties.

Healthcare leaders are talking with the community about enhancing online services and using the network to improve community-wide healthcare.

Healthcare leaders see themselves as a key part of the community's overall economic strategy. Leaders are visible and active in strategy development and implementation.

Executives of the region's hospitals, clinics, insurers, employers and other healthcare providers are meeting regularly to find ways to collaboratively reduce the cost of healthcare without compromising quality of service.

TODAY _____ **1 YR. GOAL** _____

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K–12 SCHOOLS

For our children to succeed in the new economy, the tools of the information age should be as comfortable to use as pencil and paper. The future health of the nation's economy depends on how broadly and deeply we reach a new level of literacy—that includes strong academic skills, thinking, reasoning, teamwork skills and proficiency in using technology. Equally important is the use of these tools in the education process itself.

Our schools can provide every student, regardless of family income, with the opportunity to understand how to compete in the 21st century.

Today, we will be assessing the education sector's understanding and usage of telecommunications services and technologies. Your assignment is to work with your sector group to complete the assessment table for the education sector.

This assessment tool is designed to quickly assess where the community stands today, a rating of Level 1 is the lowest, Level 4 the highest. Please work within your group to complete the questions. Someone in the group should be designated as the table spokesperson and will be responsible for reporting on the table's findings as well as for completing a summary sheet for the facilitator.

STAGE

THE NETWORK

1
At least 50 percent of personal computers in classrooms are connected to a 100 mbps LAN.

At least half of all K–12 schools have a one mbps or faster connection to the Internet.

2
At least 10 percent of personal computers are connected to a one gbps LAN.

At least 50 percent of all K–12 schools have a 10 mbps connection to the Internet.

Wireless networks, such as WiFi, are available in several areas.

3
At least 40 percent of personal computers are connected to a one gbps LAN.

At least 50 percent of schools have a 100 mbps connection to the Internet.

Wireless networks are available in many areas.

4
At least 40 percent of personal computers are connected to a multigigabit LAN.

At least 50 percent of schools have a one gbps connection to the Internet.

Wireless networks are widely available.

MY RANK   TODAY _____   **1 YR. GOAL** _____

NETWORKED PLACES

At least 70 percent of middle and high schools have computer labs for students.

Twenty-five percent of classrooms and teachers have access to computer projectors.

Schools provide at least one computer for every five students in grades seven and above. Most classrooms have computers for student use.

At least 10 percent of teachers use computer-based presentation tools and projectors for their lessons.

Some students bring their own laptop computers to school. Some computer labs have been closed.

Seventy-five percent of classrooms teachers have access to digital projection capabilities.

Most middle and high schools have video programs that allow students to produce and share shows on a public network.

Some schools use wireless sensors to monitor energy consumption.

Most students bring their own laptop computers to school. Most computer labs have been closed.

Many classrooms have large, flat-panel displays or projectors for video-based instruction.

Most schools have converted their phone system to VoIP to save money.

TODAY _____ **1 YR. GOAL** _____

APPLICATIONS & SERVICES

At least 75 percent of schools have an informational Web site.

The Internet is rarely used as a resource for instruction or homework assignments.

Twenty-five percent of schools have an interactive Web site that offers access to homework assignments and communication with teachers and administrators.

At least 50 percent of experienced teachers know how to incorporate Internet information into the curriculum.

At least 50 percent of teachers welcome e-mail communications from parents and students.

Seventy-five percent of schools have an interactive Web site that offers access to homework assignments and e-mail contact with teachers and administrators.

100 percent of teachers are trained to use the Internet for instruction.

Parents and family members are encouraged to participate in student learning via e-mail and online applications.

At least 10 percent of seniors are taking college-level classes on the Internet.

Schools use the network to connect students, teachers and parents, improve learning via online resources, and manage administrative responsibilities more efficiently.

Schools have ICT literacy requirements in place.

Technology training is offered to the community.

At least 60 percent of high school students use online teachers and experts to explore subjects and develop learning plans.

TODAY _____ **1 YR. GOAL** _____

LEADERSHIP

Few schools have plans for better utilizing telecommunications services and technologies in their classrooms.

Fewer than 50 percent of experienced teachers are trained in how to incorporate material from the Internet into their curriculum.

The school board sees opportunities to use the network to raise test scores and operate the school more efficiently.

Teacher training on new technologies is a priority at most school districts.

Schools are using consultants to take advantage of e-rate and other school discounts.

At least 40 percent of schools have comprehensive plans for learning activities utilizing technology in the classroom.

New hires are required to have experience using new technology in the classroom.

Computer labs are made available to family and community members.

Schools take responsibility for continuing e-rate and other discounts.

At least 70 percent of schools have comprehensive plans for learning activities utilizing technology in the classroom.

School districts actively promote ICT literacy to drive postive impacts on economic performance, skills and innovation in the classroom.

The school system plays a vital role in raising the skill level and awareness of community and family members.

TODAY _____ **1 YR. GOAL** _____

HIGHER EDUCATION

Higher education faces the challenge of supporting a new family of advanced applications to meet emerging academic requirements in research, teaching and learning. Part of this challenge is to provide the essential network infra-structure that enables faculty, staff and students access to the kinds of services, features and protocols needed in today's and tomorrow's academic settings.

As it has been in the past, the educa-tion market will continue to be a hot arena for advanced networking tech-nologies. Higher education led the way in bringing the Internet to life and will continue that tradition as the penetration of high-speed Internet and broadband networking into the K–12 and higher education markets rapidly approaches ubiquity.

Communities must understand how to engage higher education in the community's economic success.

Today, we will be assessing the higher education sector's understanding and usage of telecommunications services and technologies. Your assignment is to work with your sector group to complete the assessment table for the higher education sector.

This assessment tool is designed to quickly assess where the community stands today, a rating of Level 1 is the lowest, Level 4 the highest. Please work within your group to complete the questions. Someone in the group should be designated as the table spokesperson and will be responsible for reporting on the table's findings as well as for completing a summary sheet for the facilitator.

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STAGE | THE NETWORK

1

At least 50 percent of personal computers in classrooms are connected to a 100 mbps LAN.

Wireless networks, such as WiFi, are available on some campuses.

At least 50 percent of schools have at least a 1.5 (T1) mbps symmetrical connection to the Internet.

2

At least 10 percent of personal computers are connected to a one gbps LAN.

Wireless networks are available on most campuses.

At least 50 percent of schools have at least a 45 mbps symmetrical connection to the Internet.

3

At least 40 percent of personal computers are connected to a one gbps LAN.

Forty-five mbps wireless networks are available in most classrooms and in open spaces on campus.

At least 25 percent of schools have a one gbps symmetrical connection to the Internet.

4

At least 40 percent of personal computers are connected to a multigigabit LAN.

100 mbps wireless networks are available on 60 percent of campuses.

All schools have at least a one gbps symmetrical connection to the Internet.

MY RANK TODAY _____ **1 YR. GOAL** _____

NETWORKED PLACES

Most on-campus residences have a computer center with a 100 mbps connection.

Twenty-five percent of classrooms are wired to the college/university network and are equipped with digital projection capabilities.

Most on-campus residences have connections to the network in every room at least 10 mbps.

Some classrooms have been remodeled to include network connections and power outlets at every seat.

Some classrooms have projection equipment that allows the instructor to display videos from the Internet into the classroom.

At least 25 percent of classrooms have been remodeled to include network connections and power outlets at every seat.

At least 50 percent of students bring laptop computers or other network-enabled devices to class.

At least 30 percent of classrooms have video equipment for recording lectures.

At least 50 percent of classrooms have been remodeled to include network connections and power outlets at every seat.

At least 75 percent of students bring laptop computers or other network-enabled devices to class.

At least 50 percent of classrooms have video equipment for recording lectures.

TODAY _____ 1 YR. GOAL _____

APPLICATIONS & SERVICES

At least 25 percent of faculty members are trained to use the Internet for instruction.

At least 25 percent of classes use digital content and/or Web-based content for instruction.

At least 50 percent of the faculty is trained to use the Internet for instruction.

Fifty percent of classes use digital content and/or Web-based content for instruction.

Students use chat rooms to discuss lessons and ask questions of instructors outside of class hours.

Online registration, catalogs and payment available.

At least 75 percent of the faculty is trained to use the Internet for instruction.

Seventy percent of classes use digital content and/or Web-based content for instruction.

At least 10 percent of undergraduate students take distance learning classes for specialized subjects and graduate-level research.

At least 30 percent of undergraduate students take distance learning classes for specialized subjects and graduate-level research.

All aspects of higher education are available through the network including instruction and administration.

TODAY _____ 1 YR. GOAL _____

LEADERSHIP

Few departments have plans for better utilizing telecommunications services and technologies in their operations.

Specialized courses have been developed to cater to area businesses seeking to improve the skills of workers.

At least 30 percent of colleges and universities have or are developing online classes to provide greater convenience for students and to increase student enrollment.

Faculty training on new technology is a priority.

Higher education and local businesses are working together to raise the skill level of the current workforce.

Community colleges are expanding their capacity by using distance learning technologies to reduce the need for classroom time.

At least 30 percent of colleges and universities are developing online classes to market to students in other parts of the country and the world.

The college/university sees itself as a vital partner in the community's economic development strategy and has formed partnerships with local businesses to provide skilled technology workers and innovative solutions.

Colleges/universities actively promote ICT literacy to drive postive impacts on economic performance, skills and innovation in the classroom.

TODAY _____ 1 YR. GOAL _____

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LIBRARIES

Public libraries play a vital role in most communities by providing every resident with the opportunity to receive instruction and use the Internet for free. Libraries are not open 24 hours a day, however, so sometimes there are lines of people waiting to use the computers. Some people have been able to start businesses because of Internet access in libraries, and many K–12 students have come to depend on access to libraries' computers to complete homework assignments.

The role of the public library in economic development is also changing. Successful communities today are harnessing the collaborative strength of business, government, higher education, and public services agencies into a powerful collaborative model for economic development.

Today, we will be assessing the public library sector's understanding and usage of telecommunications services and technologies. Your assignment is to work with your sector group to complete the assessment table for the library sector.

This assessment tool is designed to quickly assess where the community stands today, a rating of Level 1 is the lowest, Level 4 the highest. Please work within your group to complete the questions. Someone in the group should be designated as the table spokesperson and will be responsible for reporting on the table's findings as well as for completing a summary sheet for the facilitator.

STAGE

THE NETWORK

1 Every public library has a one mbps or faster (DSL or cable modem) connection to the Internet.

2 At least 50 percent of public libraries have a 10 mbps symmetrical connection to the Internet.

Wireless networks, such as WiFi, are available in some areas.

3 At least 50 percent of public libraries have a 100 mbps symmetrical connection to the Internet.

Wireless networks are available in many areas.

4 At least 50 percent of public libraries have a one gbps symmetrical connection to the Internet.

High-speed wireless is widely available.

MY RANK   TODAY _____   **1 YR. GOAL** _____

NETWORKED PLACES

APPLICATIONS & SERVICES

LEADERSHIP

Public libraries provide several computers with free access access to the Internet.

Most libraries have a Web site with basic information about hours of operation and location.

Libraries are the first to offer free access and instruction in the use of the Internet.

There is rarely a more than 10-minute wait to use the Internet-enabled computers.

At least 80 percent of libraries have catalogs online.

Patrons may use the Internet to place books on hold and request books from other libraries in the library system.

Patrons can search online databases from home, school or work.

Libraries host live video feeds of public-interest events.

The library research desk is an online community resource.

Staff training on new technologies is a priority at most libraries.

Libraries are using consultants to take advantage of e-rate and other discounts.

Library policies reflect appropriate filtering requirements.

Public libraries have added network ports or wireless networks and electrical outlets to carrels.

Patrons may review their accounts online and pay fines by credit card.

Patrons can access the library online as a portal for other online information services.

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Libraries help the community understand copyright issues and how to protect privacy on the Internet.

New hires are required to have experience using new technology.

Libraries take internal responsibility for continuing e-rate and other discounts.

Libraries have developed network management policies and technologies to prevent patrons from sending spam.

Most public libraries offer patrons a 100 mbps or faster wireless network.

Public libraries offer live video consultations.

Public libraries allow patrons to borrow e-books over the Internet. They help patrons conduct research and assist with legal access to copyrighted databases and publications, including music and movies.

Two-way videoconferencing is available to the general public.

Libraries continue to upgrade their facilities to offer the community the next-generation in technology, services and training.

Libraries actively promote ICT literacy to drive positive impacts on economic performance, skills and innovation in the community.

TODAY _____ **1 YR. GOAL** _____

TODAY _____ **1 YR. GOAL** _____

TODAY _____ **1 YR. GOAL** _____

SMALL BUSINESSES
(FEWER THAN 150 EMPLOYEES)

A number of factors, such as global competition, out-sourcing all but core functions, demand for more personalized services and the falling costs of technology are forcing businesses to change time-honored models of operation. Businesses cannot be sheltered from these forces; bookstores are losing sales to Amazon.com, travel agents to Expedia, car dealers to Autobytel. Businesses have to adapt. Local businesses—both large and small—must learn to use the tools of the networked economy, and innovate to survive.

Small businesses are vital to every community. They provide approximately 75 percent of the net new jobs added to the economy and represent 99.7 percent of all employers. They employ 50.1 percent of the private work force and provide 40.9 percent of private sales in the United States.

Being online has become essential to small business. Payroll, taxes, hiring, training and retaining employees, and marketing are all being driven online. Small businesses need to understand how to harness technology in the work-place and learn to use the tools of the networked economy.

Today, we will be assessing the small business sector's understanding and usage of telecommunications services and technologies. Your assignment is to work with your sector group to complete the assessment table for the small business sector.

This assessment tool is designed to quickly assess where the community stands today, a rating of Level 1 is the lowest, Level 4 the highest. Please work within your group to complete the questions. Someone in the group should be designated as the table spokesperson and will be responsible for reporting on the table's findings as well as for completing a summary sheet for the facilitator.

The emphasis in this section is on office-based businesses, but many of the criteria apply equally to retailers and manufacturers.

STAGE

THE NETWORK

1
Almost all offices with multiple employees have a LAN that runs at 10 mbps.

At least five percent of businesses have a one mbps (DSL or cable modem) or faster Internet connection.

2
At least 50 percent of offices have a 100 mbps LAN.

Wireless networks, such as WiFi, are available inside some office buildings.

At least 20 percent of businesses have a 1 to 10 mbps symmetrical connection to the Internet.

3
At least 20 percent of offices have a one gbps LAN.

Wireless networks are available in at least 20 percent of office buildings.

At least 50 percent of businesses have a 1 to 10 mbps symmetrical connection and 10 percent have a 100 mbps connection to the Internet.

4
At least 70 percent of offices have a one gbps LAN.

100 mbps wireless networks are available in at least 60 percent of office buildings and their surrounding outdoor areas.

At least 50 percent of businesses have a 100 mbps connection and 20 percent have a one gbps connection to the Internet.

MY RANK   TODAY _____   **1 YR. GOAL** _____

NETWORKED PLACES

At least 10 percent of office employees have always-on connections to the Internet at their desks.

At least 50 percent of office employees have always-on connections to the Internet at their desks.

At least 30 percent of mobile workers have laptop computers and can access the office network remotely.

Affordable videoconferencing facilities are available in the community.

At least 20 percent of businesses are using VoIP to save money.

At least 20 percent of office workers have converted from desktop computers to portable devices with wireless connections.

At least 20 percent of office computers have webcams for videoconferencing.

At least 50 percent of businesses use VoIP to save money.

At least 50 percent of computers have video cameras.

At least 30 percent of retailers and manufacturers use RFID to track inventory and equipment.

TODAY _____ **1 YR. GOAL** _____

APPLICATIONS & SERVICES

At least 30 percent of businesses have an informational Web site.

At least 30 percent of businesses transmit or receive some orders electronically.

At least 60 percent of businesses have an informational Web site.

At least 40 percent of retail Web sites can accept credit card purchases.

At least 30 percent of businesses participate in an electronic supply chain.

At least 10 percent of businesses outsource most of their computing services.

At least 30 percent of retailers and manufacturers sell goods out of state or internationally.

At least five percent of employees work remotely, some out of state.

At least 20 percent of businesses send and receive video mail.

At least 30 percent of businesses outsource most of their computing services.

At least 20 percent of businesses routinely use multi-party videoconferencing to coordinate operations.

TODAY _____ **1 YR. GOAL** _____

LEADERSHIP

At least 20 percent of businesses view the Internet as essential to business operations.

At least 10 percent of businesses permit some employees periodically to telework.

At least 10 percent of businesses encourage employees to take work-related classes online.

Employee training on new technology is a priority.

At least 40 percent of businesses permit some employees to telework one or two days a week.

At least 30 percent of businesses encourage employees to take work-related classes online.

At least 20 percent of businesses have restructured to focus on their core contribution and outsource nonessential functions.

New hires are required to have experience using new technology in business applications.

TODAY _____ **1 YR. GOAL** _____

LARGE BUSINESSES
(MORE THAN 150 EMPLOYEES)

A number of factors, such as global competition, outsourcing all but core functions, demand for more personalized services and the falling costs of technology are forcing businesses to change time-honored models of operation. Businesses cannot be sheltered from these forces; bookstores are losing sales to Amazon.com, travel agents to Expedia, car dealers to Autobytel. Businesses have to adapt. Local businesses—both large and small—must learn to use the tools of the networked economy, and innovate to survive.

The role of the large business sector in economic development is also changing. Successful communities today are harnessing the collaborative strength of business, government, higher education, and others into a powerful collaborative model for economic development.

Today, we will be assessing the large business sector's understanding and usage of telecommunications services and technologies. Your assignment is to work with your sector group to complete the assessment table for the large business sector.

This assessment tool is designed to quickly assess where the community stands today, a rating of Level 1 is the lowest, Level 4 the highest. Please work within your group to complete the questions. Someone in the group should be designated as the table spokesperson and will be responsible for reporting on the table's findings as well as for completing a summary sheet for the facilitator.

STAGE

THE NETWORK

1
At least 50 percent of offices have a LAN that runs at 100 mbps.

100 mbps networks interconnect most buildings.

Most facilities in at least 50 percent of businesses have a one mbps symmetrical or faster connection to the Internet.

2
At least 10 percent of offices have a one gbps LAN.

Wireless networks, such as WiFi, are available inside most office buildings and some production facilities.

Most facilities in at least 50 percent of businesses have a 10 mbps symmetrical connection to the Internet.

3
At least 50 percent of offices have a one gbps LAN.

100 mbps wireless networks are available inside at least 80 percent of office buildings and 30 percent of production facilities.

At least 50 percent of businesses have a have a 100 mbps symmetric connection to the Internet at their main office.

4
At least 90 percent of offices have a one gbps LAN.

100 mbps wireless networks are available in almost all office buildings and the surrounding outdoor areas.

At least 50 percent of businesses have a have a one gbps connection to the Internet at their main office.

MY RANK   TODAY _____   **1 YR. GOAL** _____

NETWORKED PLACES

At least 70 percent of office employees have always-on connections to the Internet at their desks.

At least 20 percent of businesses have videoconferencing capacity either on the desktop or in meeting rooms.

At least 10 percent of businesses send some video mail.

At least 20 percent of businesses are using VoIP for long-distance calling to save money.

At least 50 percent of businesses have videoconferencing capacity either on the desktop or in meeting rooms.

At least 30 percent of businesses send some video mail.

At least 60 percent of businesses are using VoIP for long-distance calling to save money.

At least 60 percent of businesses send some video mail.

RFID is being used for inventory management by at least 10 percent of businesses.

TODAY _____ 1 YR.
GOAL _____

APPLICATIONS & SERVICES

At least 40 percent of businesses routinely buy and sell goods and services online, some using supply chain networks.

At least 30 percent of businesses use Web-based tools to support distributed teams.

At least 30 percent of businesses use an intranet to support internal employees.

At least 50 percent of businesses use their intranet for online time entry, self-service HR and accounting.

RFID is being used for inventory management by at least 10 percent of businesses.

At least 20 percent of companies reduce office space requirements by providing sales and service employees with reliable remote access to company systems.

At least 50 percent of businesses use videoconferencing to provide customer support.

RFID is being used for inventory management by at least 50 percent of businesses.

TODAY _____ 1 YR.
GOAL _____

LEADERSHIP

At least 10 percent of businesses have a formal telework program that allows employees to work at home at least one day a week.

At least 50 percent of businesses permit some employees to telework at least one day a week.

At least 50 percent of businesses encourage employees to take work-related classes online.

At least 20 percent of businesses outsource all nonessential computing services.

Businesses work closely with community colleges to keep college curriculums up-to-date with industry needs.

At least 60 percent of businesses outsource noncore services such as IT, accounting and HR.

Industry works with city planners to ensure that business centers and neighborhoods have access to the latest network technologies.

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TODAY _____ 1 YR.
GOAL _____

COMMUNITY-BASED ORGANIZATIONS

Nonprofit agencies provide a wide variety of services to the community, including technology training, health services, religious services, children's sports and public entertainment. Like any organization, community-based organizations (CBOs) need information technology to manage operations, apply for grants, reduce costs and improve client services. Budgets are always tight, and many times they depend on outdated computers and donated services. CBOs generally don't have the time or money to train staff, create Web sites or take advantage of high-speed services.

The role of CBOs in economic development is also changing. Successful communities today are harnessing the collaborative strength of business, government, higher education, and public service agencies into a powerful collaborative model for economic development.

Today, we will be assessing the CBO sector's understanding and usage of telecommunications services and technologies. Your assignment is to work with your sector group to complete the assessment table for the CBO sector.

The assessment tool is designed to quickly assess where the community stands today, a rating of Stage 1 is the lowest, Stage 4 the highest. Please work within your group to complete the questions. Someone in the group should be designated as the table spokesperson and will be responsible for reporting on the table's findings as well as for completing a summary sheet for the facilitator.

STAGE

THE NETWORK

1

Almost all offices with multiple employees have a LAN that runs at 10 mbps.

At least 25 percent of businesses have a one mbps (DSL or cable modem) or faster Internet connection.

2

At least 40 percent of CBOs use broadband.

Wireless networks, such as WiFi, are available inside some office buildings.

At least 20 percent of CBOs have a 1 to 10 mbps symmetrical connection to the Internet.

3

At least 75 percent of CBOs use broadband.

Wireless networks are available inside at least 20 percent of office buildings.

At least 50 percent of CBOs have a 1 to 10 mbps symmetrical connection and 10 percent have a 100 mbps connection to the Internet.

4

At least 90 percent of CBOs use broadband.

100 mbps wireless networks are available in at least 60 percent of office buildings and their outdoor areas.

At least 50 percent of CBOs have a 100 mbps connection and 20 percent have a one gbps Internet connection.

MY RANK

TODAY _____   1 YR. GOAL _____

NETWORKED PLACES

Twenty-five percent of CBOs have computers that no more than three years old.

Fifty percent of CBOs have e-mail.

At least 10 percent of office employees have always-on connections to the Internet at their desks.

Fifty percent of CBOs with at least five paid staff have at least one computer for every three employees.

Seventy-five percent of all CBOs have e-mail.

Fifty percent of CBOs with at least five employees have direct connections to the Internet.

100 percent of paid staff has e-mail accounts.

At least 20 percent of CBOs use VoIP to save money.

At least 20 percent of office workers have converted from desktop computers to portable wireless devices.

At least 20 percent of office computers have video cameras.

Every CBO is connected to the Internet. Every computer can access the Internet via a local area network.

At least 50 percent of CBOs use VoIP.

At least 50 percent of computers have video cameras.

Most CBOs use affordable videoconferencing facilities.

TODAY _____ 1 YR. GOAL _____

APPLICATIONS & SERVICES

At least 25 percent of CBOs have informational Web sites.

Fifty percent of CBOs have an informational Web site.

Fifty percent of local chapters are able to share data electronically with the national parent organization.

Twenty-five percent of CBOs accept online donations.

Seventy-five percent of community-based organizations have an informational Web site.

A unified CBO portal provides access to a broad range of community information and services.

Seventy-five percent of local chapters are able to share data with the parent organization.

Fifty percent of CBOs accept online donations.

Some CBOs utilize an interactive service to further engage the community and make their services more broadly available.

Electronic data sharing is a common practice between CBOs locally and with national parent organizations.

Seventy-five percent of CBOs accept online donations.

TODAY _____ 1 YR. GOAL _____

LEADERSHIP

CBOs are minimally involved in community economic development issues.

Little or no plans exist for better utilizing telecommunications services and technologies.

Ten percent of CBOs provide technology training to their staff at least once a year.

Some CBO leaders are involved in specific economic development initiatives, but most do not participate.

Twenty percent of CBOs plan to use telecommunications services and technologies within the next year.

Thirty percent of CBOs provide technology training to their staff at least once a year.

Some CBO leaders are actively involved in community economic development issues and there are visible leaders taking a significant role in economic development.

Forty percent of CBOs plan to use telecommunications services and technologies within the next year.

Sixty percent of CBOs provide technology training to their staff at least once a year.

CBOs have a defined role in supporting local economic development initiatives.

Seventy-five percent of CBOs plan to use telecommunications services and technologies within the next year.

CBOs collaborate with one another regularly to share resources and provide up-to-date training to their employees and volunteers.

TODAY _____ 1 YR. GOAL _____

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NOTES

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RESOURCES

The following consultants have contributed to the development of the guide and have extensive experience in conducting readiness workshops for communities. Each offers unique methods of conducting workshops and summarizing results. Please contact them directly for more information.

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HDR Management Consulting has extensive experience working with local governments around the country developing successful e-Communities programs. HDR's e-Communities services focuses on guiding a community through the process of crafting an overall competitiveness strategy, telecommunications strategy, e-Government strategy, and land use and capital improvement project policies to support wired communities.

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